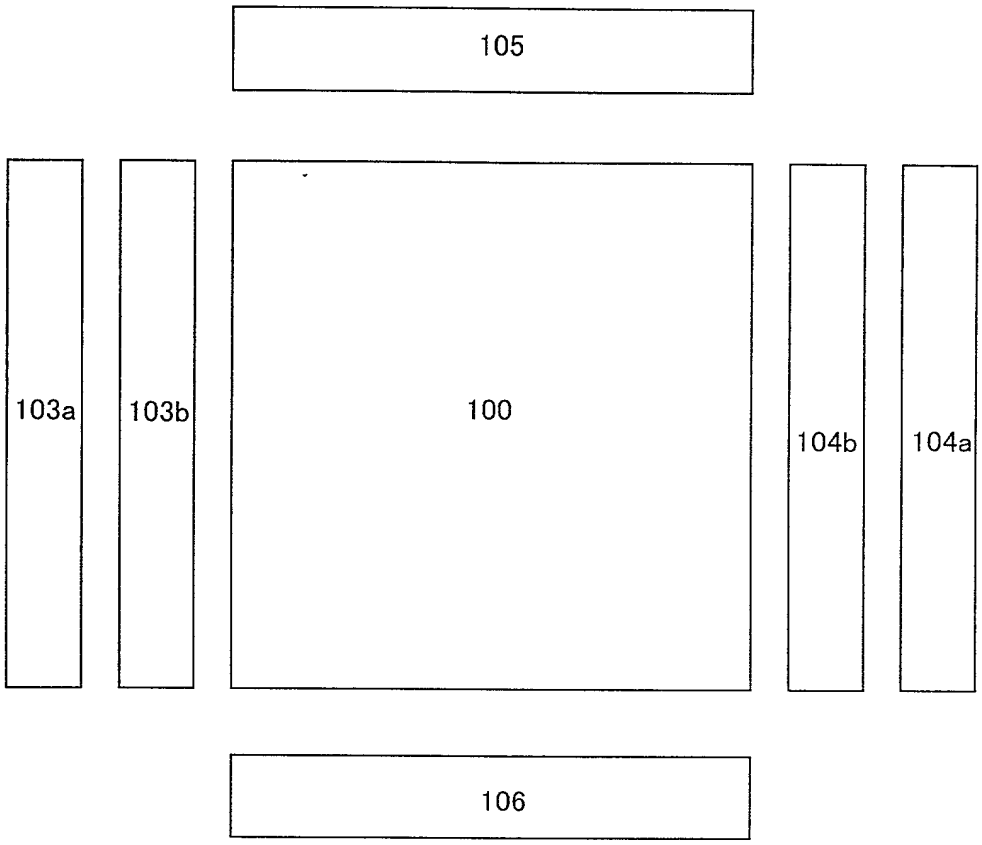
Fig.1



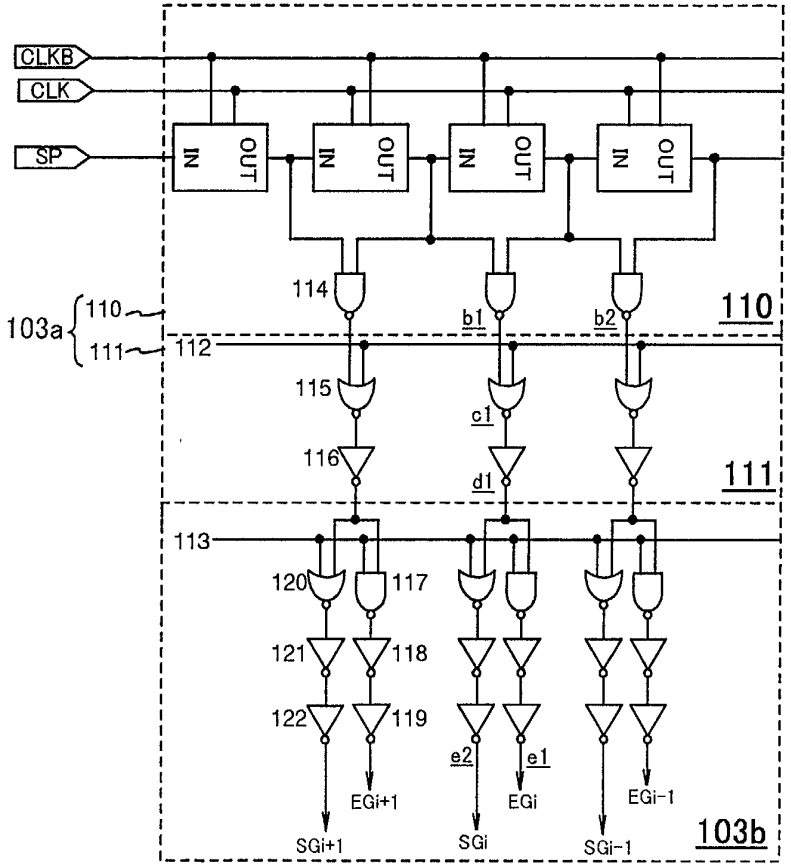


Fig.2A

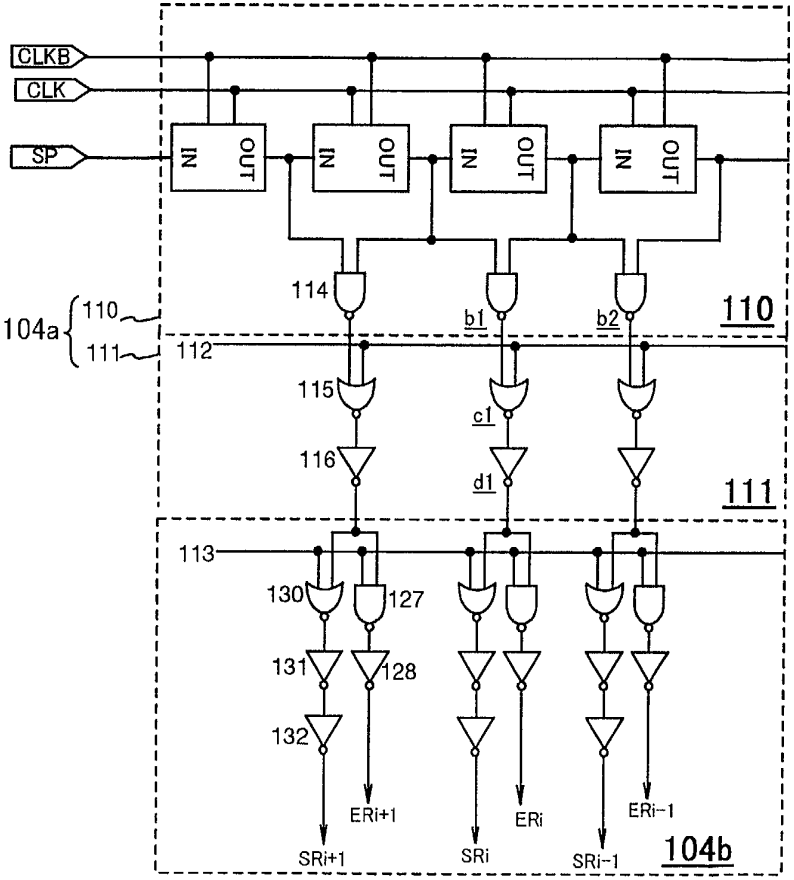


Fig.2B

Fig.3

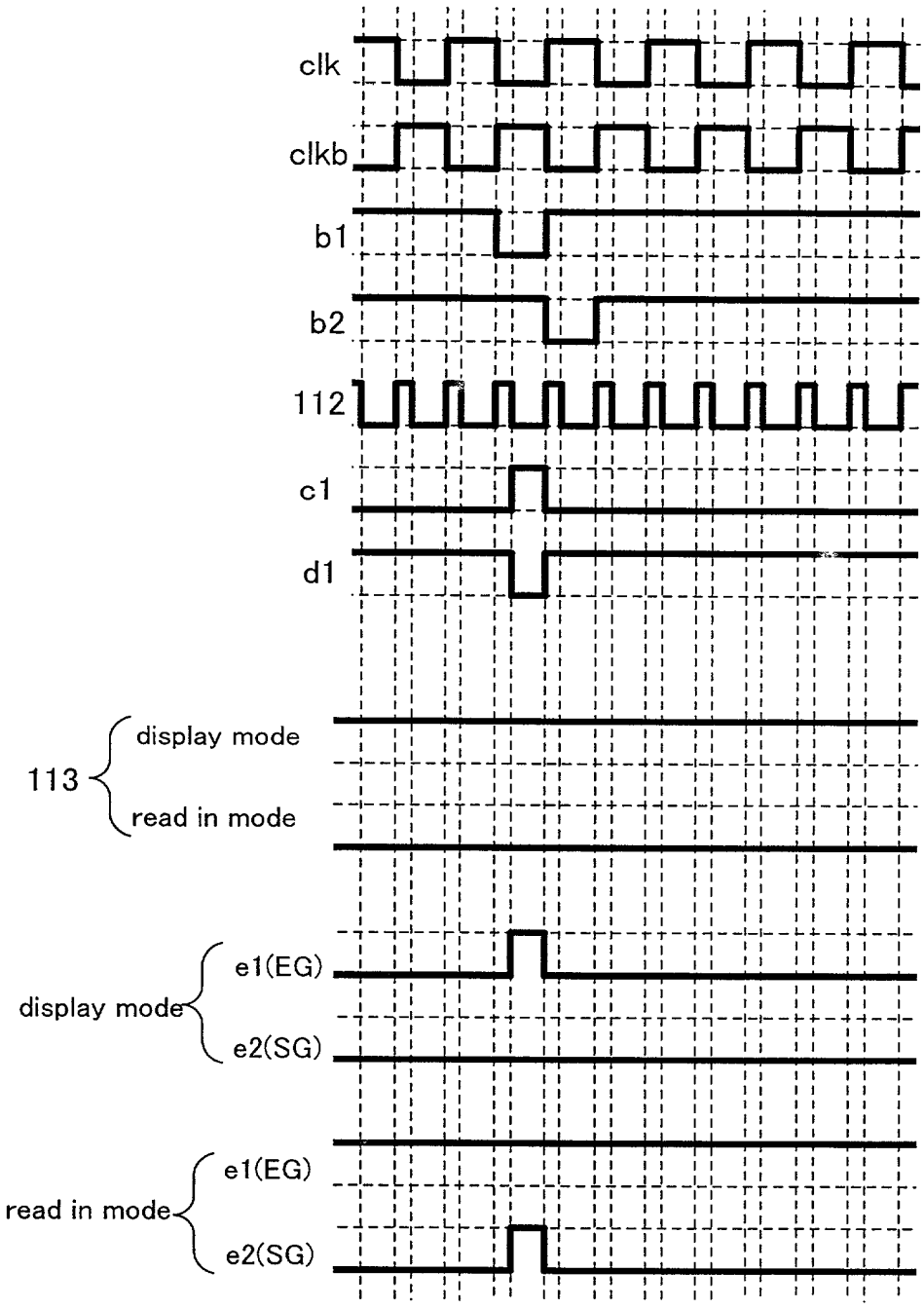

clk
clkb
b1
b2
112
c1
d1
113
display mode
read in mode
display mode
e1(EG)
e2(SG)
read in mode
e1(EG)
e2(SG)

Fig.4A

		display mode	monochrome read in
light emitting element portion	source signal line driver circuit	pulse	on
	video signal	pulse	on
	EG	pulse	on
	ER	pulse	off
sensor portion	SS		pulse
	SG	off	pulse
	SR	off	pulse

Fig.4B

		display mode	color read in		
			R	G	B
light emitting element potion	source signal line driver circuit	pulse	on	on	on
	video signal (R)	pulse	on	off	off
	video signal (G)	pulse	off	on	off
	video signal (B)	pulse	off	off	on
	EG	pulse	on	on	on
	ER	pulse	off	off	off
sensor portion	SS		pulse	pulse	pulse
	SG	off	pulse	pulse	pulse
	SG	off	pulse	pulse	pulse

Fig.5

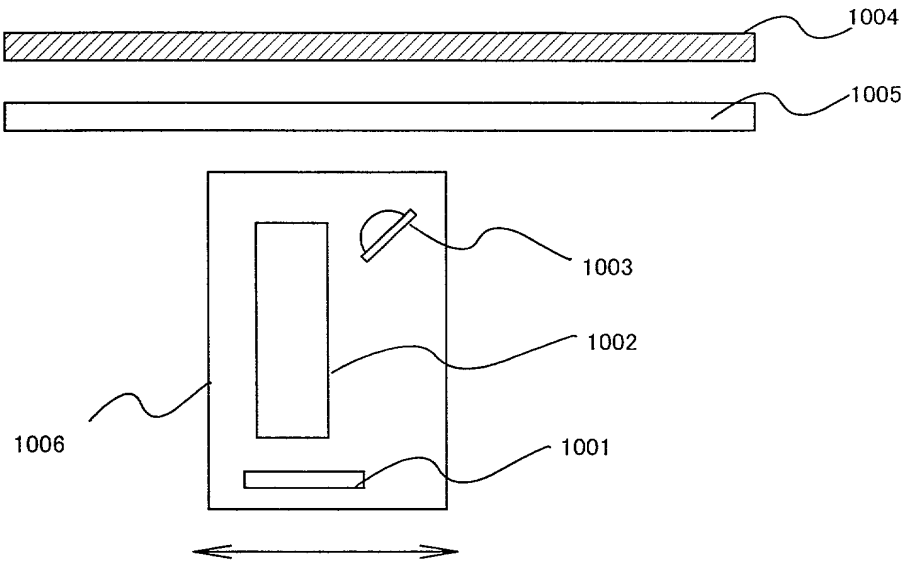


Fig.6

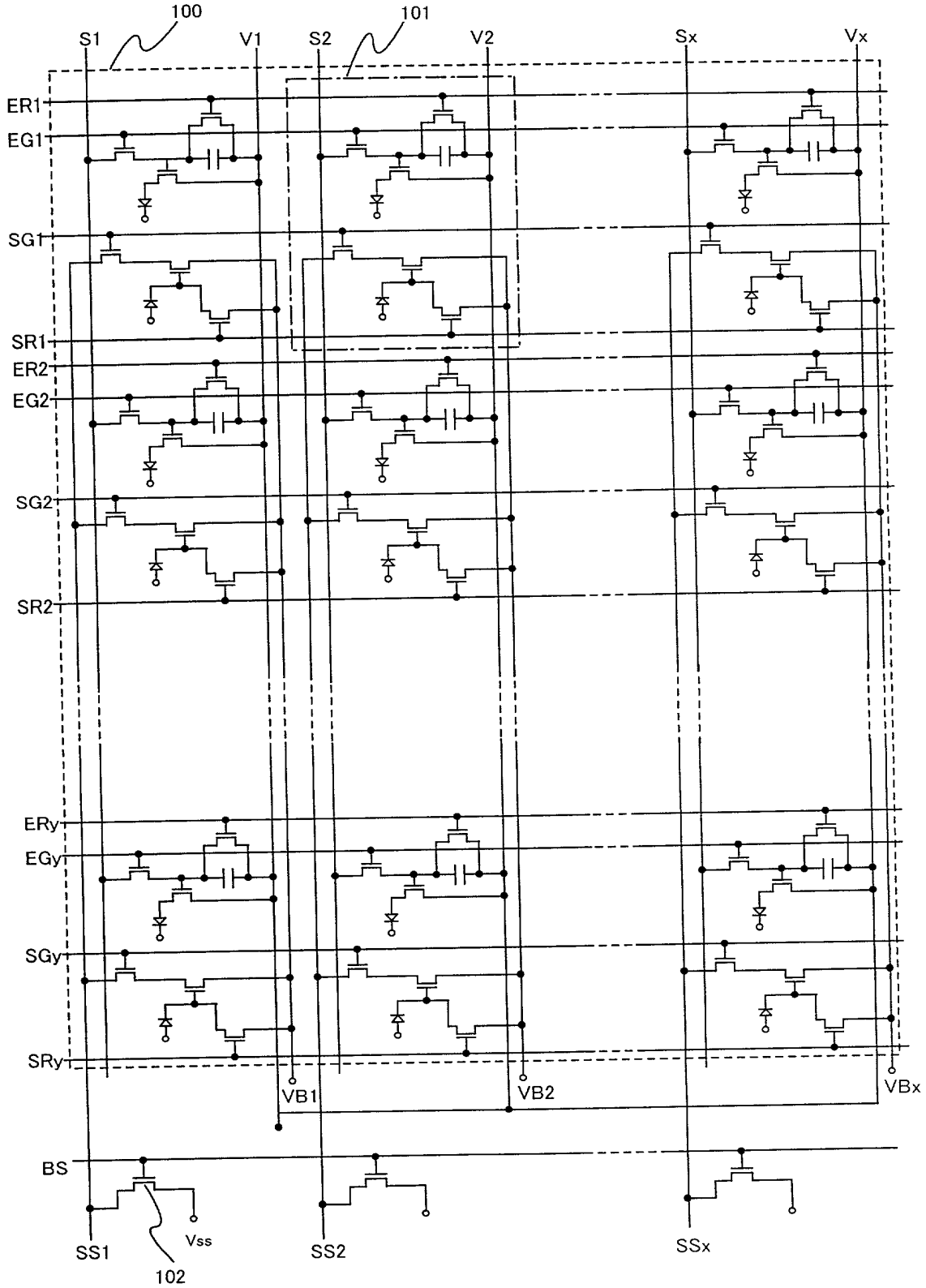

100
101
S1
V1
S2
V2
Sx
Vx
ER1
EG1
SG1
SR1
ER2
EG2
SG2
SR2
ERy
EGy
SGy
SRy
VB1
VB2
VBx
BS
SS1
Vss
102
SS2
SSx

Fig.7

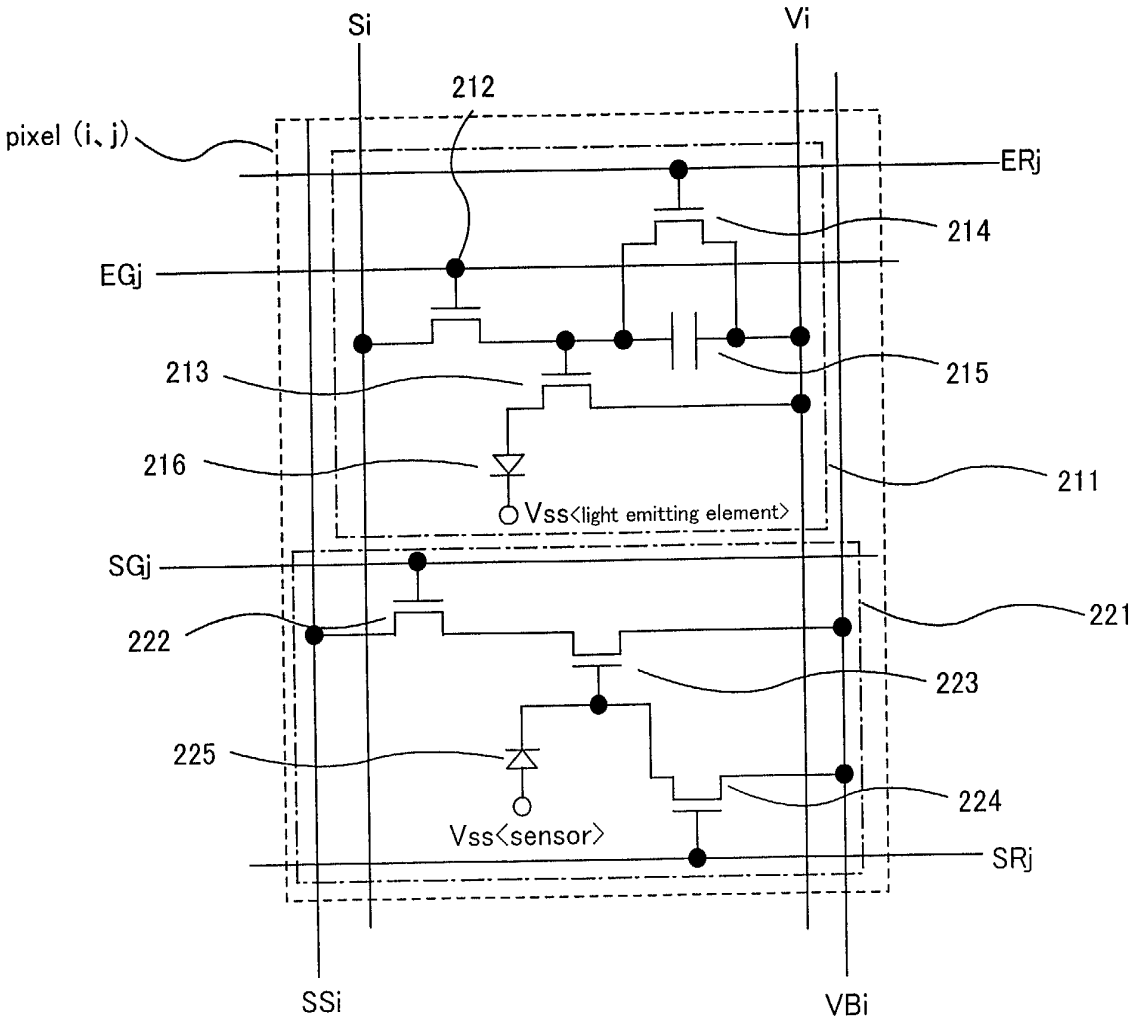

Si
Vi
212
pixel (i, j)
ERj
214
EGj
213
215
216
211
Vss<light emitting element>
SGj
221
222
223
225
224
Vss<sensor>
SRj
SSi
VBi

Fig.8

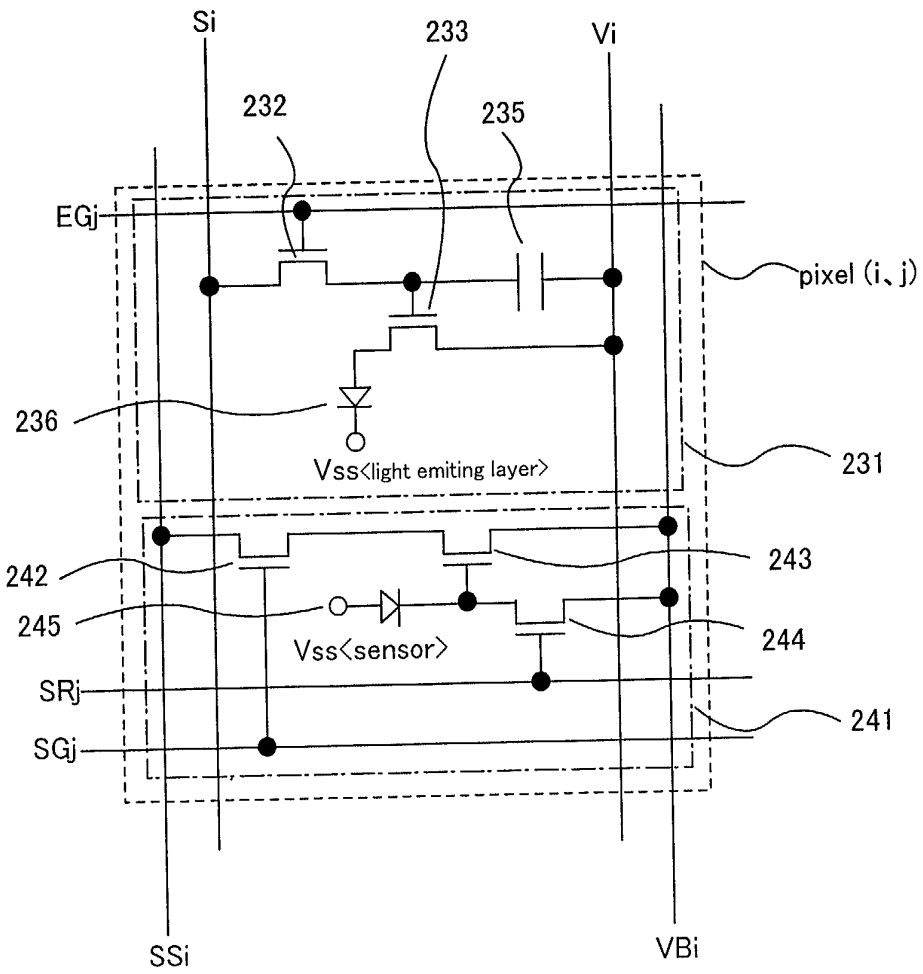

Si
233
Vi
232
235
EGj
pixel (i、j)
236
231
Vss<light emiting layer>
242
243
245
244
Vss<sensor>
SRj
241
SGj
SSi
VBi

Fig.9

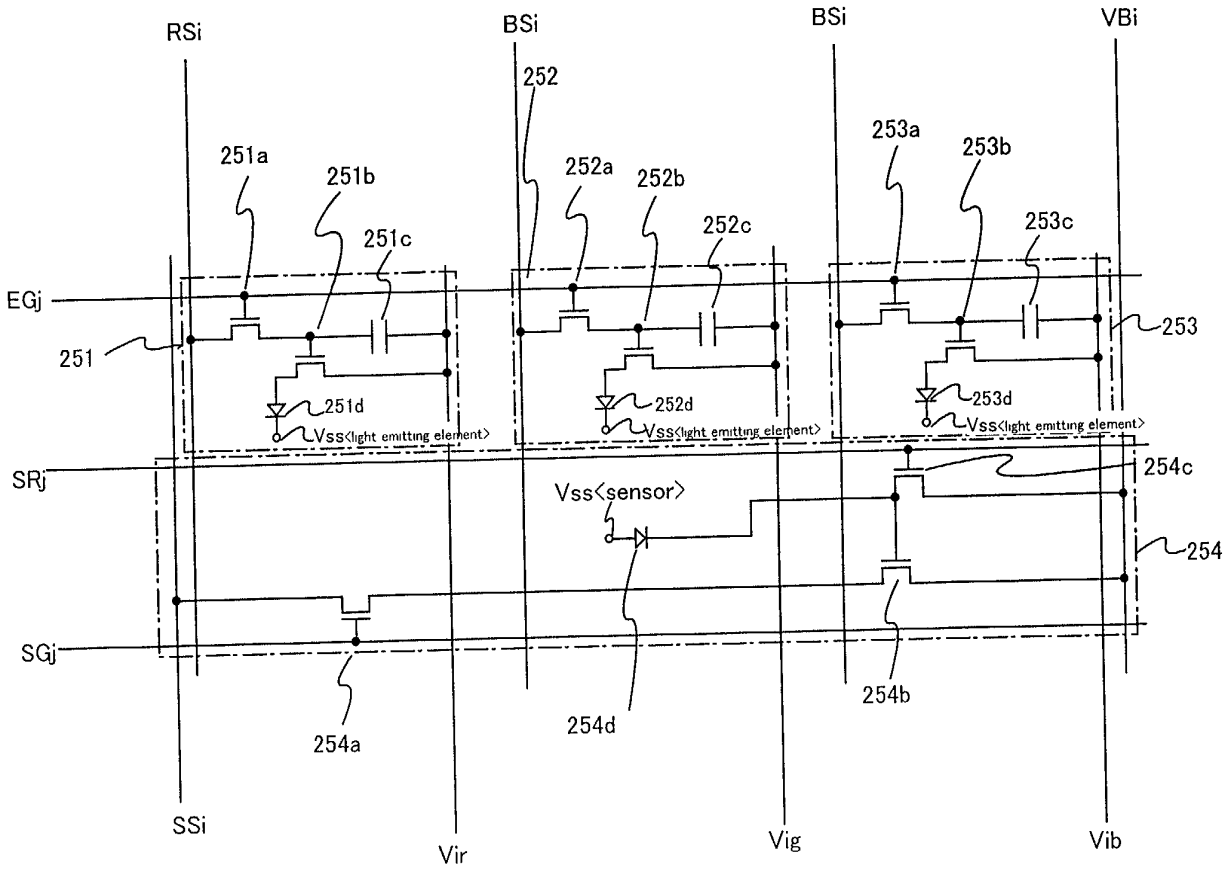

RSi
BSi
BSi
VBi
252
251a
251b
251c
252a
252b
252c
253a
253b
253c
EGj
251
253
251d
252d
253d
Vss<light emitting element>
Vss<light emitting element>
Vss<light emitting element>
SRj
254c
Vss<sensor>
254
SGj
254a
254d
254b
SSi
Vir
Vig
Vib

Fig.10

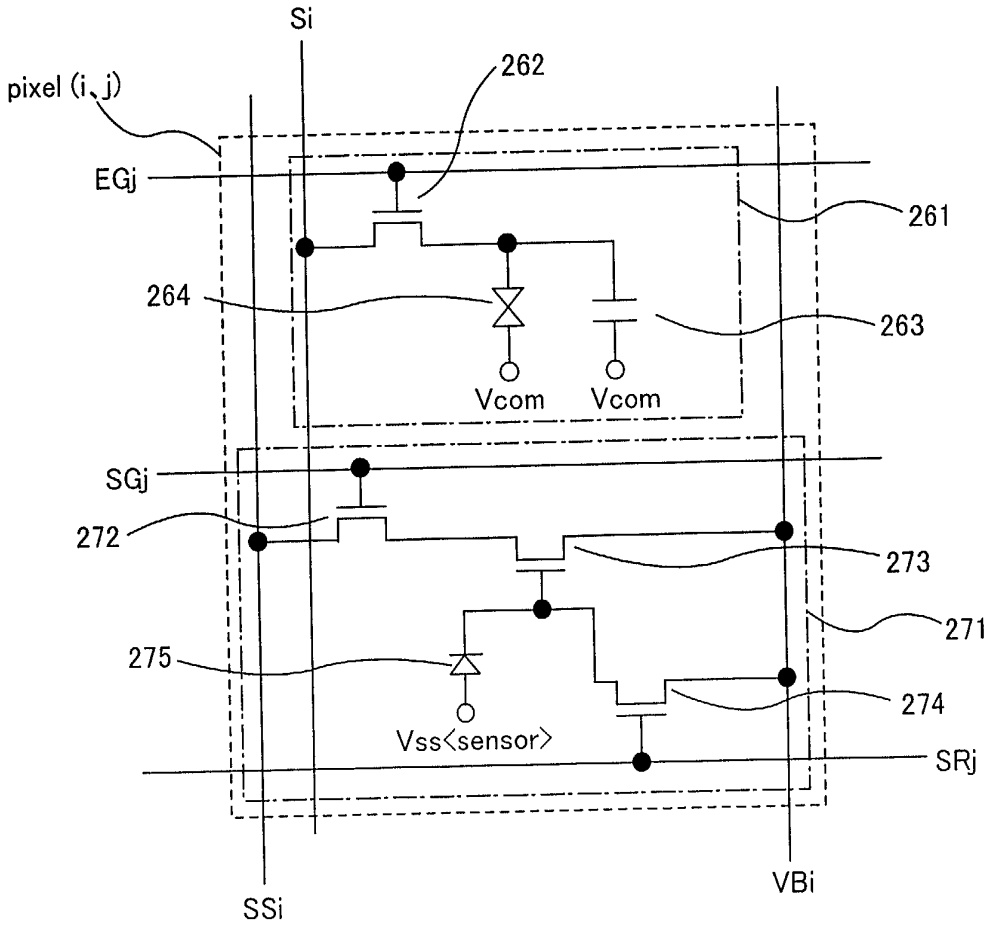

Si
pixel (i, j)
262
EGj
261
264
263
Vcom
Vcom
SGj
272
273
271
275
274
Vss<sensor>
SRj
SSi
VBi

Fig.11

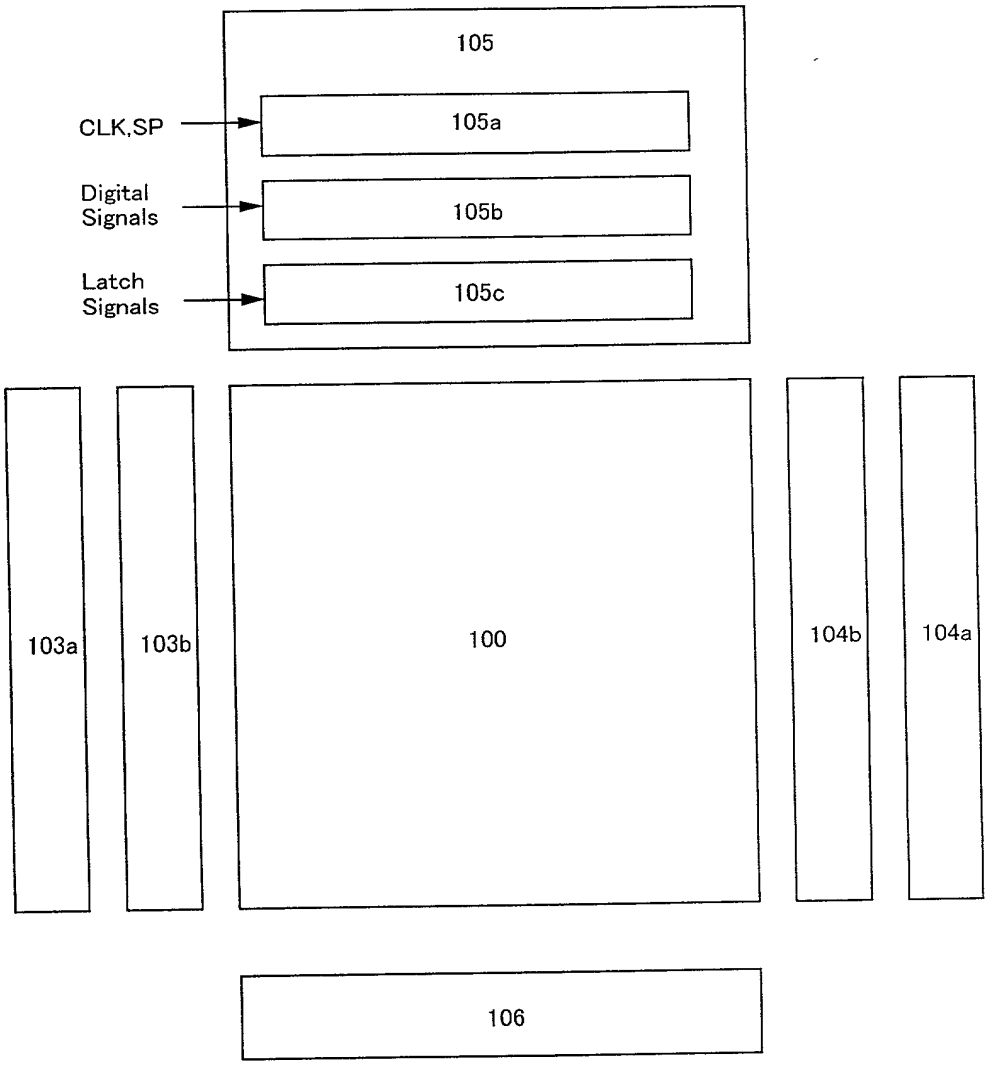

105
CLK,SP
105a
Digital Signals
105b
Latch Signals
105c
103a
103b
100
104b
104a
106

Fig.12

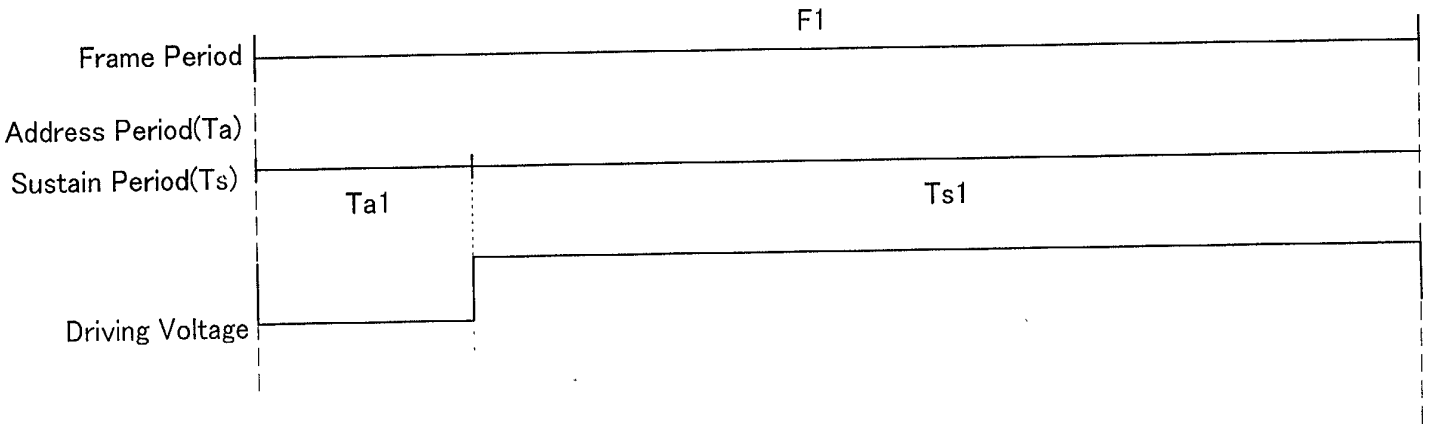

F1
Frame Period
Address Period(Ta)
Sustain Period(Ts)
Ta1
Ts1
Driving Voltage

Fig.13

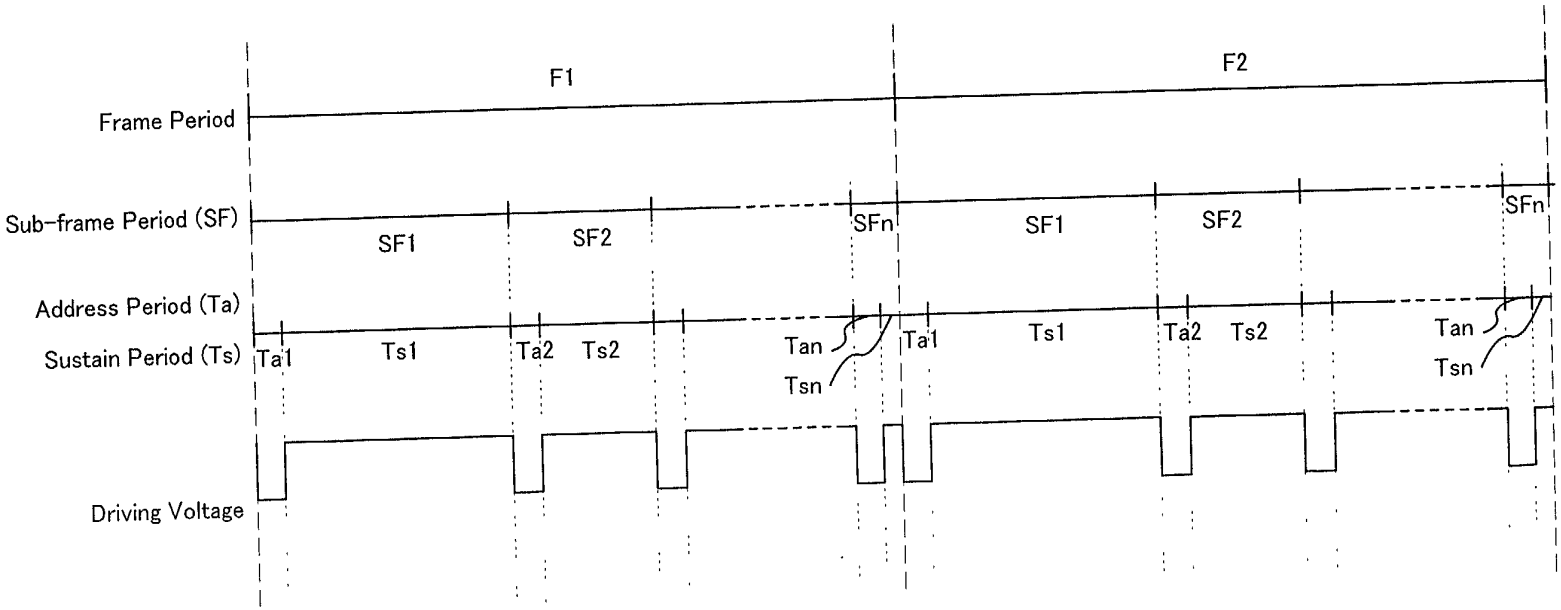

F1
F2
Frame Period
Sub-frame Period (SF)
SF1
SF2
SFn
SF1
SF2
SFn
Address Period (Ta)
Sustain Period (Ts)
Ta1
Ts1
Ta2
Ts2
Tan
Tsn
Ta1
Ts1
Ta2
Ts2
Tan
Tsn
Driving Voltage

Fig.14

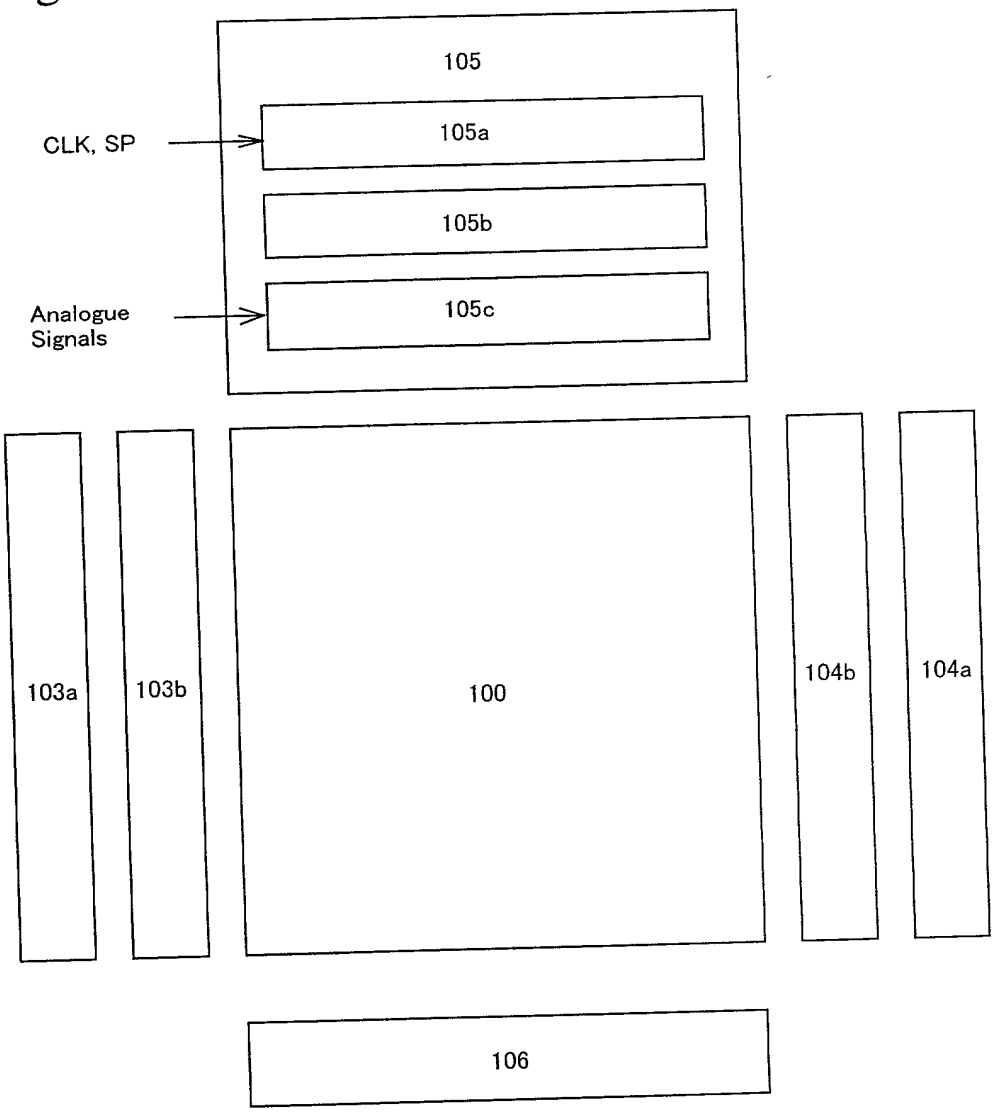

105
CLK, SP
105a
105b
Analogue
Signals
105c
103a
103b
100
104b
104a
106

Fig.15

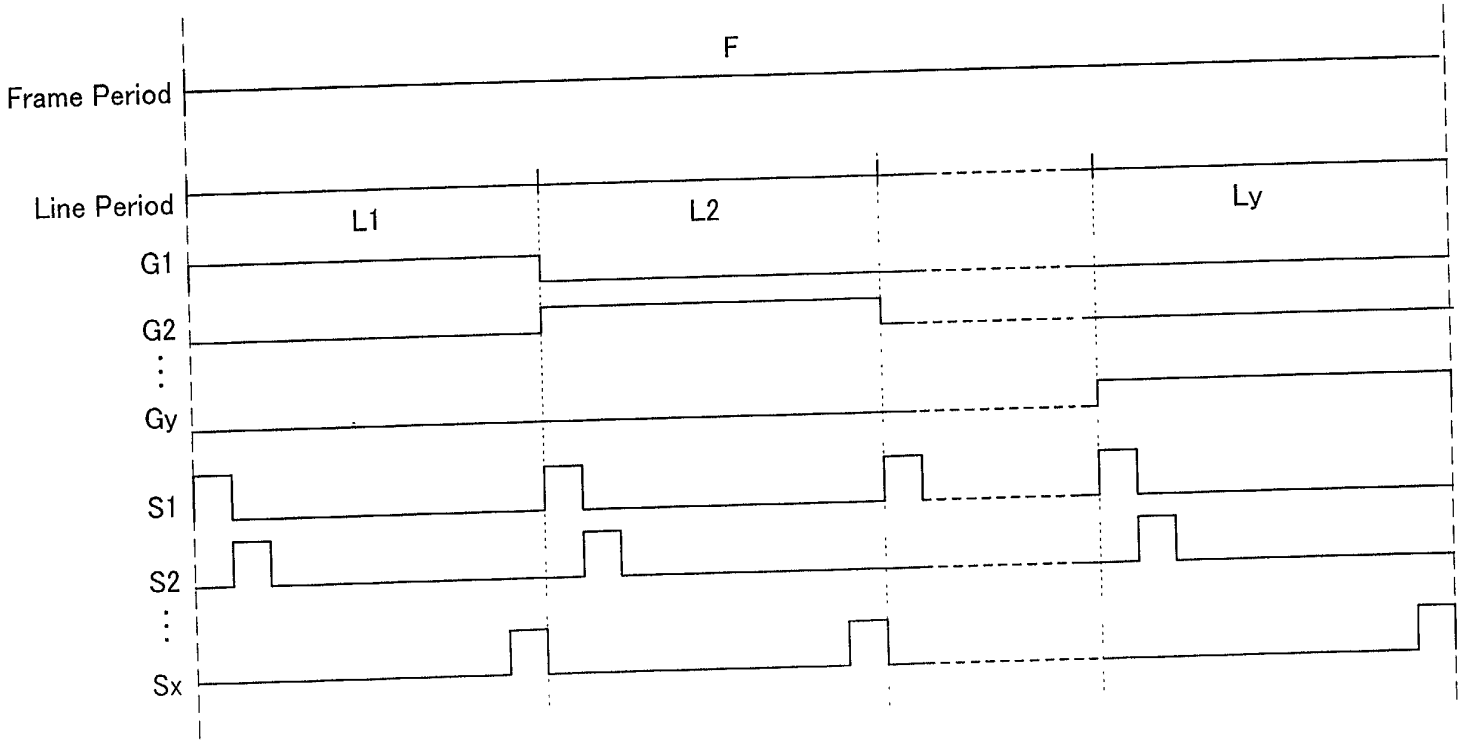


Fig.16

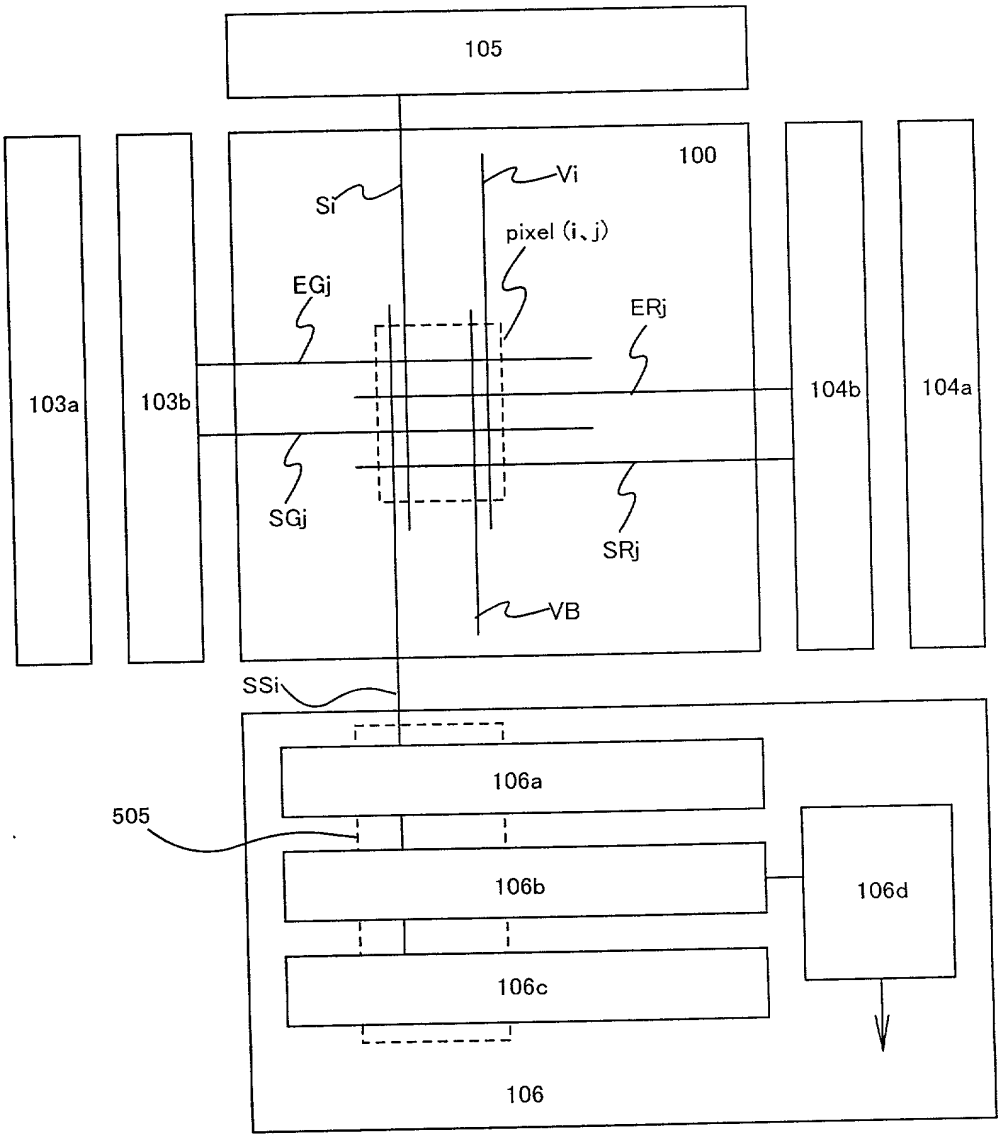

105
100
Si
Vi
pixel (i、j)
EGj
ERj
103a
103b
104b
104a
SGj
SRj
VB
SSi
106a
505
106b
106d
106c
106

Fig.17

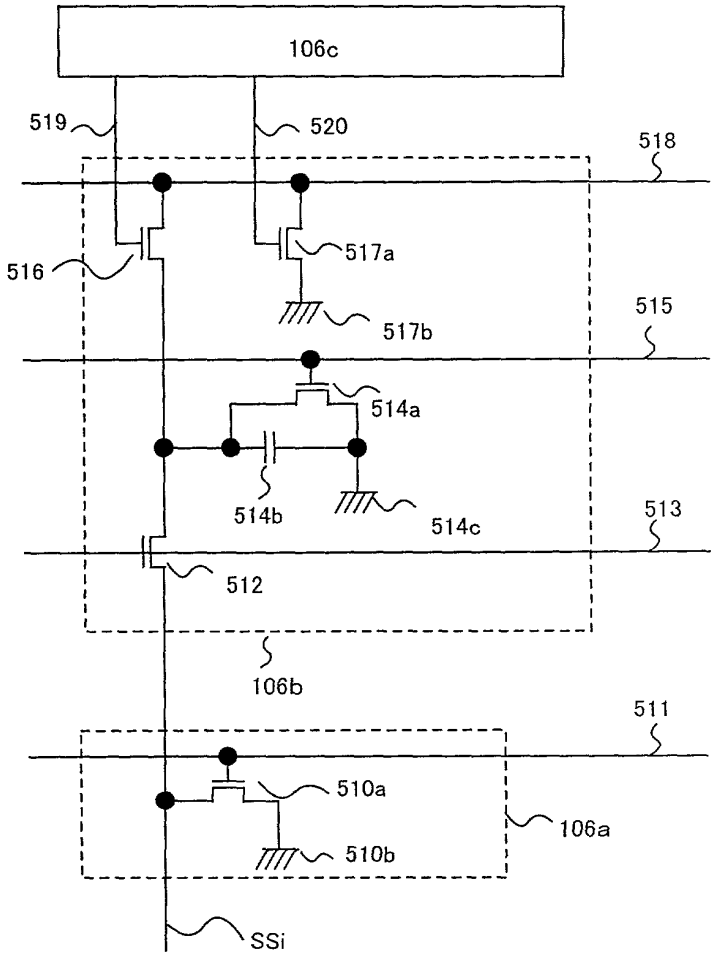

106c
519
520
518
516
517a
517b
515
514a
514b
514c
513
512
106b
511
510a
106a
510b
SSi

Fig.18

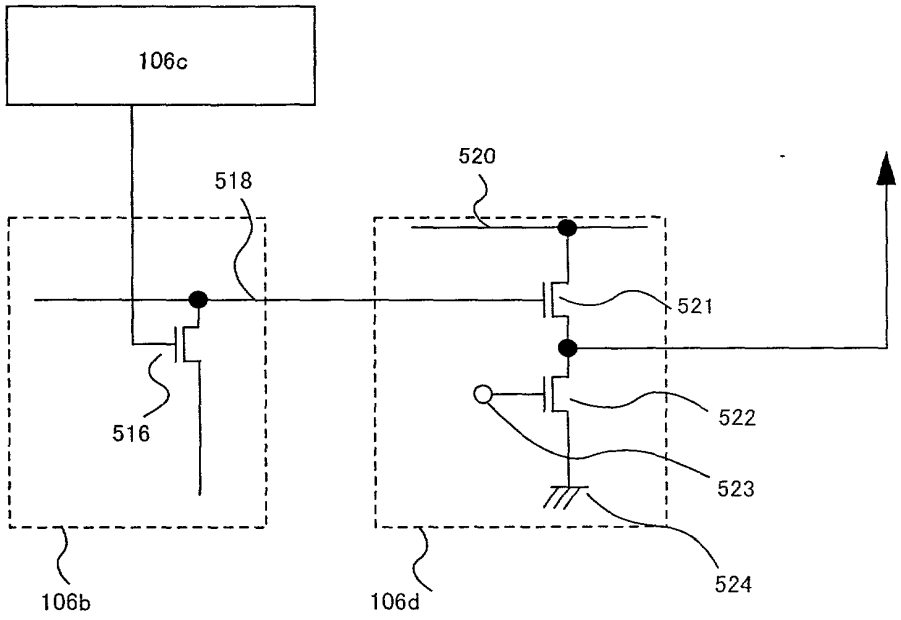


Fig.19

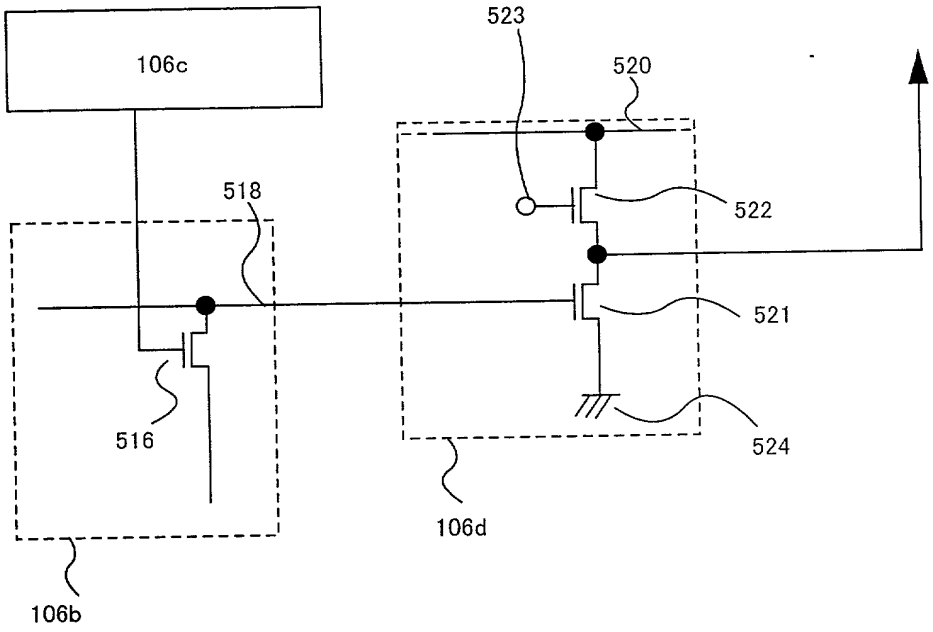


Fig.20

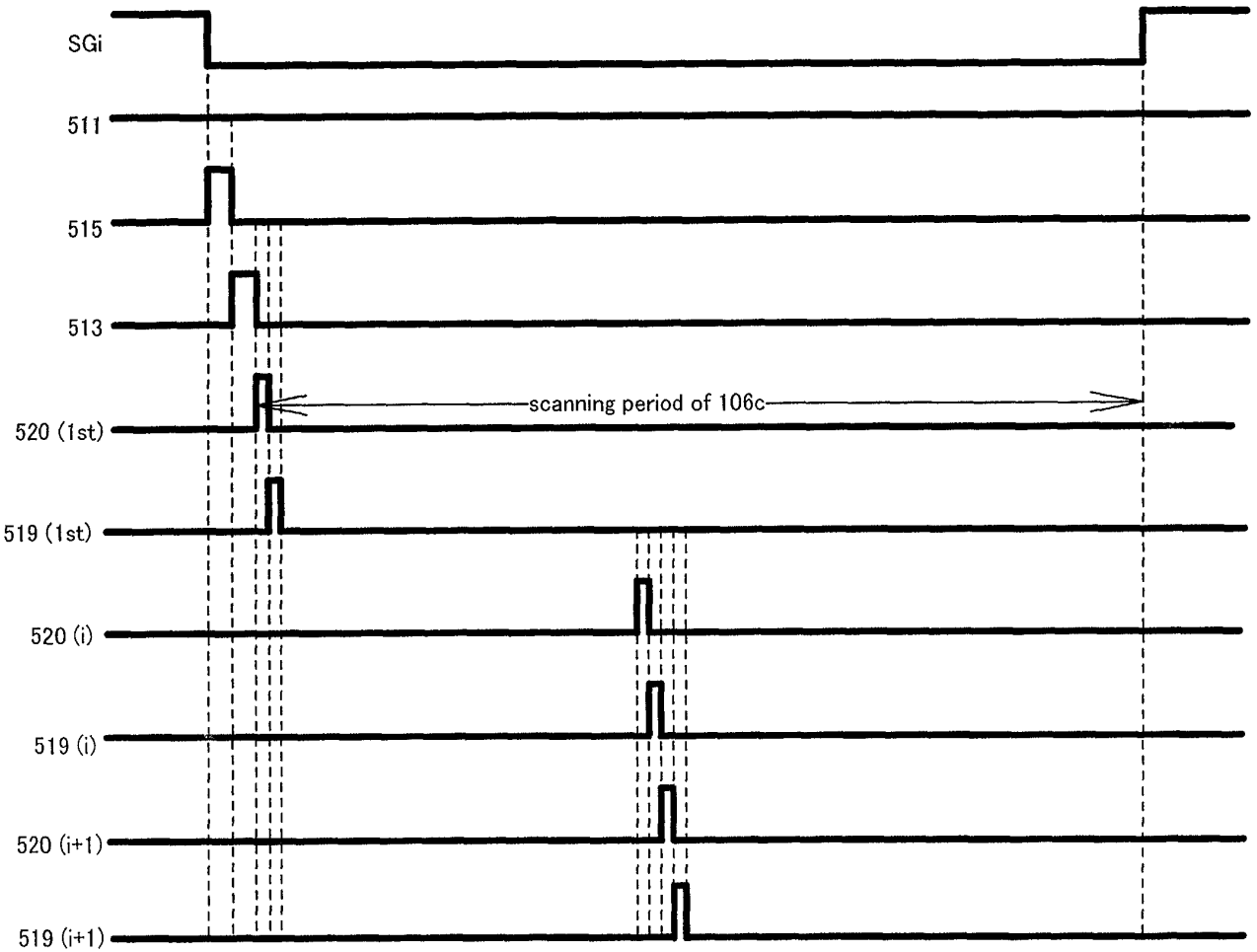

SGi
511
515
513
scanning period of 106c
520 (1st)
519 (1st)
520 (i)
519 (i)
520 (i+1)
519 (i+1)

Fig.21

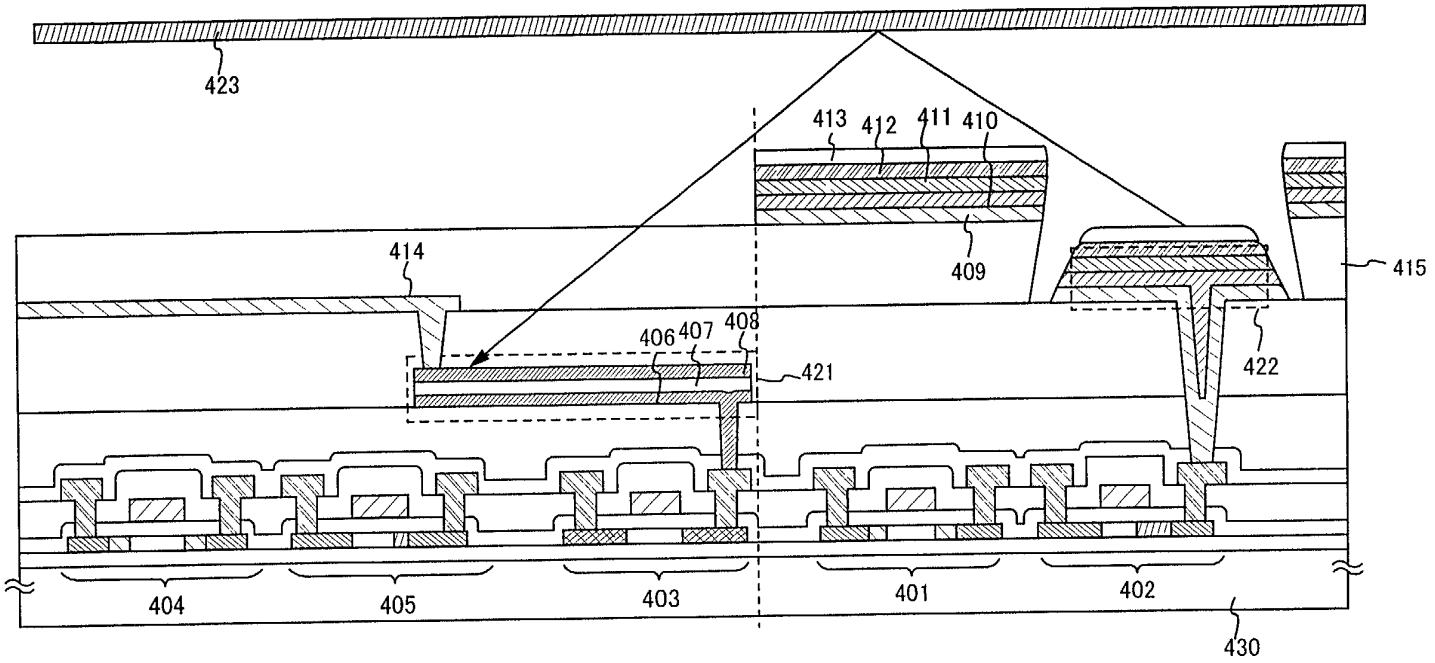

423
413
412
411
410
409
414
415
406
407
408
421
422
404
405
403
401
402
430

Fig.22

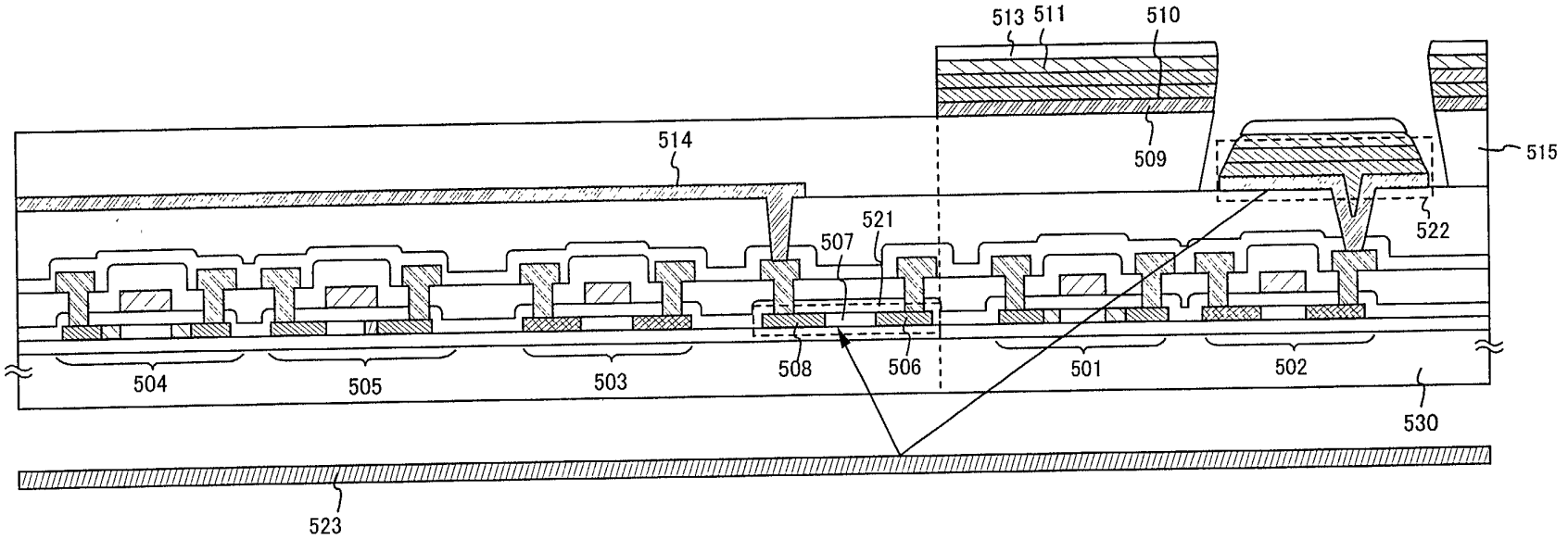

513
511
510
514
509
515
521
507
522
504
505
503
508
506
501
502
530
523

Fig.23

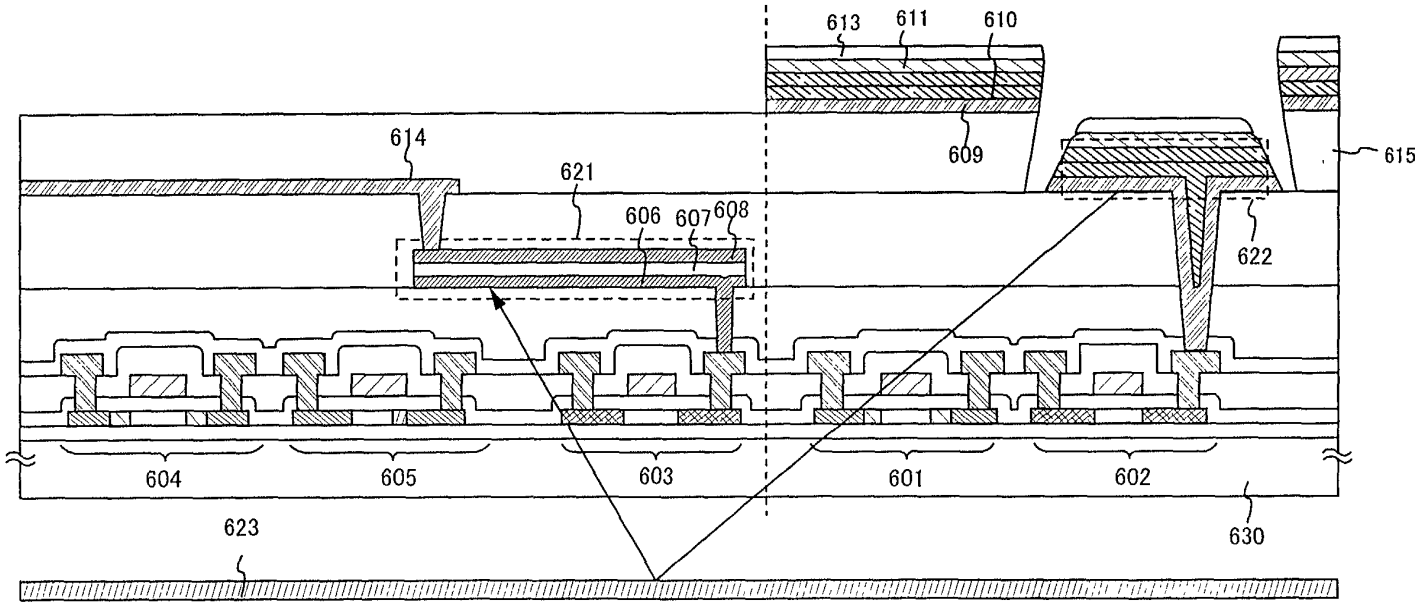

613
611
610
614
609
615
621
606
607
608
622
604
605
603
601
602
623
630

Fig.24

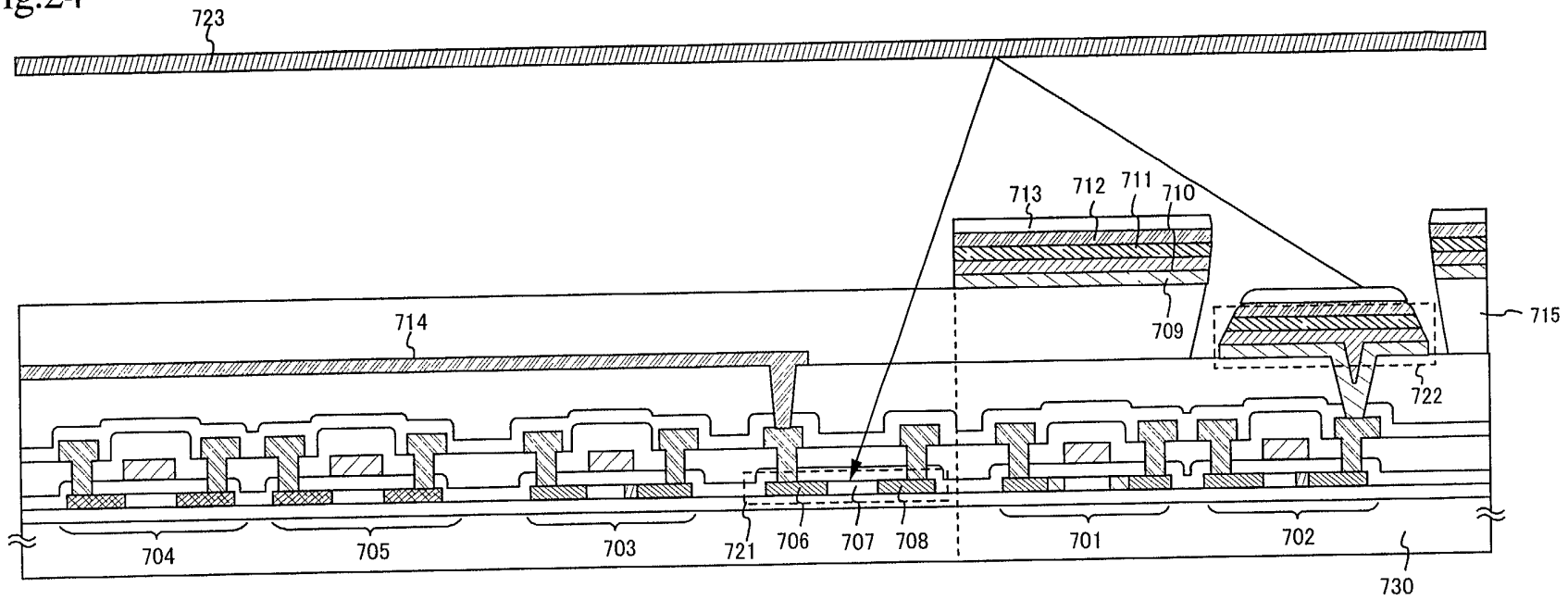

723
713
712
711
710
709
715
714
722
704
705
703
721
706
707
708
701
702
730

Fig.25

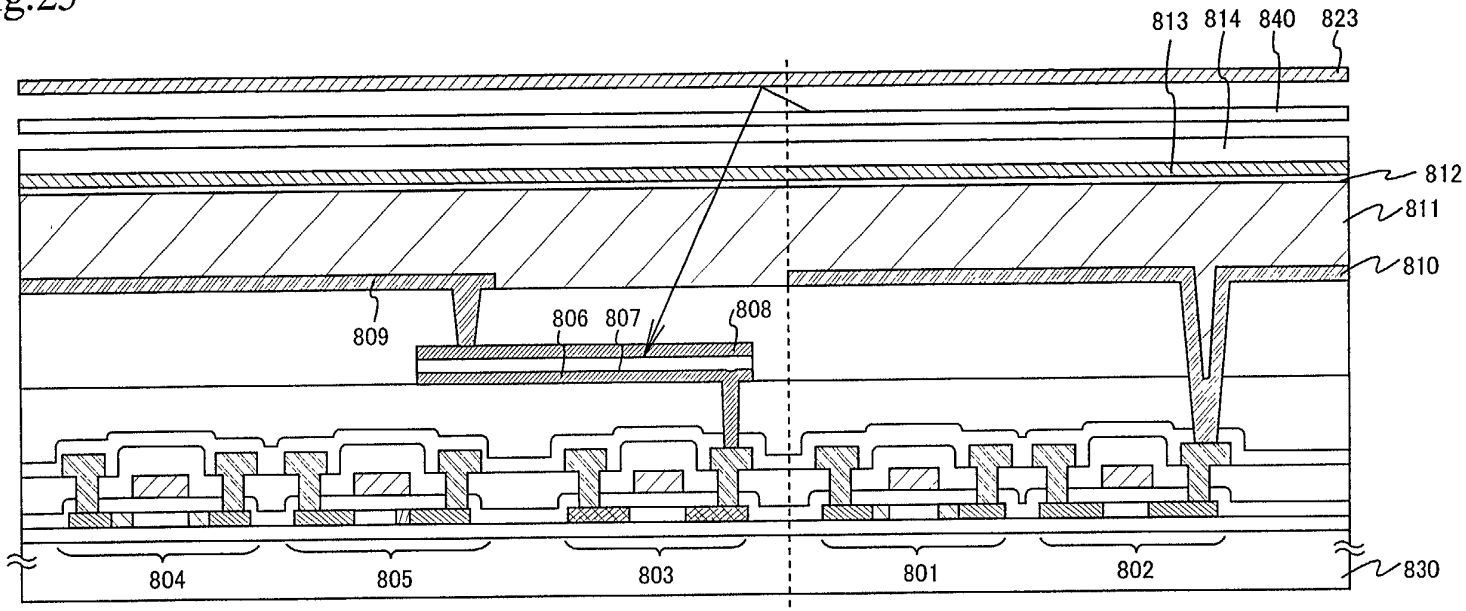

813
814
840
823
812
811
810
809
806
807
808
804
805
803
801
802
830

Fig.26

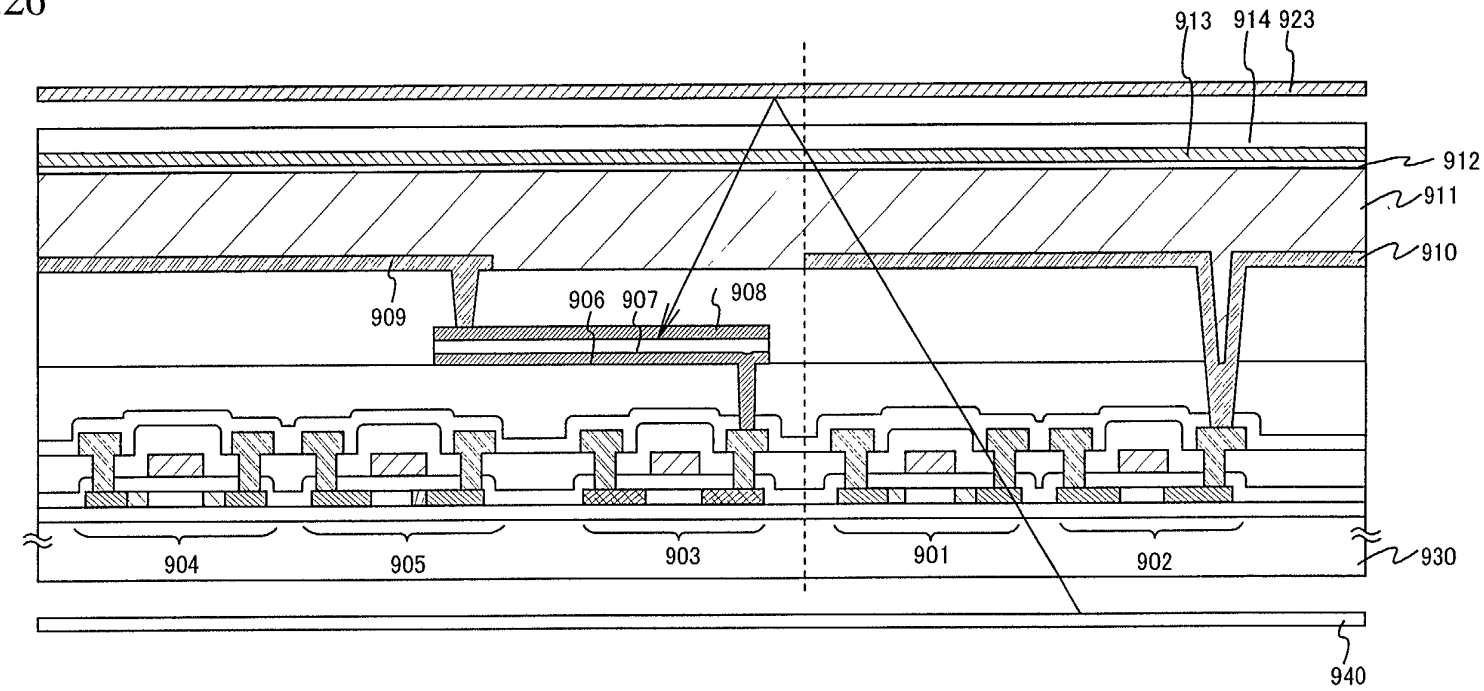

913
914
923
912
911
910
909
906
907
908
904
905
903
901
902
930
940

Fig.27A

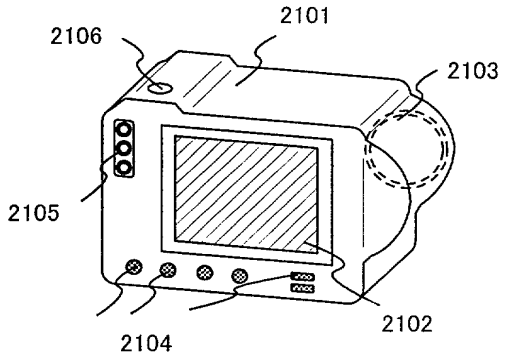


Fig.27B

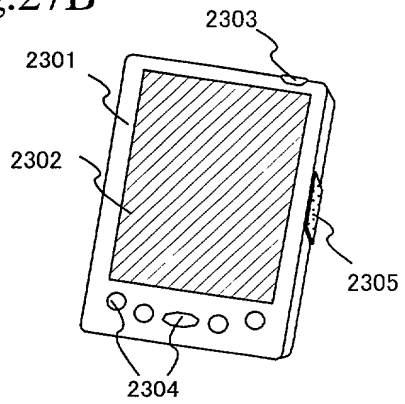


Fig.27C

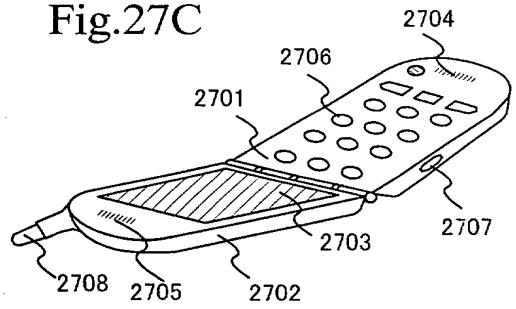


Fig.28A

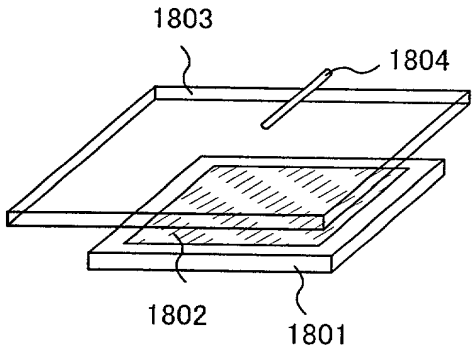


Fig.28B

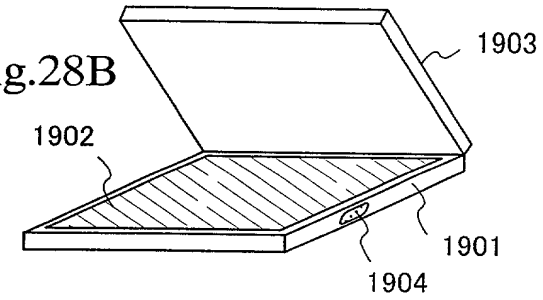


Fig.28C